

Extra Questions

1. Laws of motion

Q. 1 When an object falls freely to the ground its acceleration is uniform.

Ans:- When an object falls freely to the ground, its acceleration is uniform because while falling the velocity increases by equal amounts in equal interval of time.

Q. 2 Explain the different ways for changing the velocity.

Ans – Velocity is related to speed and direction, so using these terms velocity can be changed

- i) Changing speed and keeping direction constant.
- ii) Changing direction and keeping speed constant.
- iii) Changing both speed and direction of motion.

Q. 3 What is uniform speed?

Ans – When an object covers equal distance in equal intervals of time its motion, the object has uniform speed.

Q.4 What is zero acceleration?

Ans – If the velocity of a body or an object does not change with time, it has zero acceleration.

Q. 5 In which of the following examples can you sense motion?
How will you explain presence and absence of motion?

- i) The flight of a bird.
- ii) A stationary train
- iii) Leaves flying through air.
- iv) A stone lying on a hill.

Ans:- Amongst the given examples, motions that can be sensed by a stationary observer are the flight of a bird and leaves flying through air. A body is said to be in motion, if it changes its position with respect to its surroundings. Body at rest (i.e., it does not change its position with respect to its surroundings indicates absence of motion.